

Clone DNA92505 (designated as DNA92505-P2534) was deposited with ATCC and was assigned ATCC deposit no. _____. The full length mL-1Ra3 protein shown in Figure 9 has an estimated molecular weight of about 17,134 daltons and a pI of about 4.8.

Based on a BLAST and FastA sequence alignment analysis (using the ALIGN computer program) of the full-length sequence, mL-1Ra3 shows significant amino acid sequence identity to mL-1Ra, hIL-1Ra, hIL-1Ra and hIL-1Ra β proteins.

EXAMPLE 2

Isolation of DNA encoding hIL-1ra2 and hIL-1Ra3

A expressed sequence tag (EST) DNA database (LIFESEQ[®], Incyte Pharmaceuticals, Palo Alto, CA) was searched with human interleukin-1 receptor antagonist (hIL-1Ra) sequence, and the ESTs, designated 1433156 (Figure 5, SEQ ID NO: ____) and 5120028 (Figure 7, SEQ ID NO: ____), were identified, which showed homology with the hIL-1Ra known protein

EST clones 1433156 and 5120028 were purchased from Incyte Pharmaceuticals (Palo Alto, CA) and the cDNA inserts were obtained and sequenced in their entireties.

The entire nucleotide sequence of the clone 1433156, designated DNA92929, is shown in Figure 5 (SEQ ID NO: ____). Clone DNA92929 contains a single open reading frame with an apparent translational initiation site at nucleotide positions 96-98, and a stop codon at nucleotide positions 498-500 (Fig. 5; SEQ ID NO: ____). The predicted polypeptide precursor (hIL-1Ra2) is 134 amino acids long. The putative signal sequence extends from amino acid positions 1-26.

Clone DNA92929 (designated as DNA92929-P2534) was deposited with ATCC and was assigned ATCC deposit no. _____. The full-length hIL-1ra2 protein shown in Figure 5 has an estimated molecular weight of about 14,927 daltons and a pI of about 4.8.

Based on a BLAST and FastA sequence alignment analysis (using the ALIGN computer program) of the full-length sequence, hIL-1Ra2 shows significant amino acid sequence identity to hIL-1Ra β protein. hIL-1Ra2 is believed to be a splice variant of hIL-1Ra β .

The entire nucleotide sequence of the clone 5120028, designated DNA96787, is shown in Figure 7 (SEQ ID NO: ____). Clone DNA96787 contains a single open reading frame with an apparent translational initiation site at nucleotide positions 1-3, and a stop codon at nucleotide positions 466-468 (Fig. 7; SEQ ID NO: ____). The predicted polypeptide precursor (hIL-1Ra3) is 155 amino acids long. The putative signal sequence extends from amino acid positions 1-33. Putative N-myristoylation sites are located at amino acid positions 29-34, 60-65, 63-68, 73-78, 91-96 and 106-111. An interleukin-1-like sequence is located at amino acid positions 111-131.

Clone DNA96787 (designated as DNA96787-P2534) was deposited with ATCC and was assigned ATCC deposit no. _____. The full length hIL-1Ra3 protein shown in Figure 7 has an estimated molecular weight of about 16,961 daltons and a pI of about 4.9.

Based on a BLAST and FastA sequence alignment analysis (using the ALIGN computer program) of the full-length